



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/663,315

09/15/2000

Christoph Hermann

PHD 99-175

2350

24737

7590

08/22/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

NG, CHRISTINE Y

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/663,315

Applicant(s)

HERMANN, CHRISTOPH

Examiner

Christine Ng

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 33-40 is withdrawn in view of the newly discovered reference(s) to U.S. Patent No. 5,142,533 to Crisler et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 32 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,374,099 to Bi et al in view of U.S. Patent No. 5,142,533 to Crisler et al.

4. Referring to claim 32, Bi et al disclose in Figure 1 a wireless network comprising:
A base station (BS 14a-e).

A terminal (MS 12a-c) for exchanging user data and control data with the base station in dependence upon a plurality of persistency probabilities for assigning various transmissions capacities for at least one data packet. Refer to Column 1, lines 11-23 and Column 2, lines 42-48 and lines 54-64.

Wherein the terminal is operable to transmit a first reservation request (access probe sequence) for a first time (first time slot) to the base station in dependence on a first persistency probability (first predetermined threshold P), the first reservation

Art Unit: 2663

request being associated with a first data packet. In Figure 4, "before transmitting an access probe in each access probe sequence, the wireless station performs a persistence test 68 for every Access Channel slot". The terminal transmits the access probe "only if the wireless unit passes the persistence test for that slot", in which a generated random number is compared with a predetermined threshold P. Refer to Column 4, lines 8-19.

Wherein, after a transmission of a rejection message (no acknowledgement received) corresponding to the first reservation request by the base station, the terminal is further operable to transmit the first reservation request (access probe sequence) for at least one additional time (next time slot) to the base station in dependence on a second persistency probability (second predetermined threshold P). "If the persistence test fails, the access probe sequence is deferred until at least the next slot" (Column 4, lines 19-21), during which persistence test 68 is performed again. Also, the P values can be "re-calculated at each pass through the persistent test to ensure that updated persistence parameters are used to calculate the P values" (Column 8, lines 8-10).

Wherein, in response to the terminal neither receiving an assignment message (acknowledgement received) nor the rejection message (no acknowledgement received) corresponding to the first reservation request from the base station after a step-by-step increase of a transmission power to a maximum value by the terminal over at least two transmissions of the first reservation request by the terminal to the base station, the terminal is further operable to transmit the first reservation request for at least one additional time to the base station in dependence of a fourth persistency

Art Unit: 2663

probability (third predetermined threshold P). Each access probe is transmitted at a power level a specified amount higher than the previous access probe. Refer to Column 3, lines 1-5 and Column 3, line 59 to Column 4, line 7. Furthermore, "If the persistence test fails, the access probe sequence is deferred until at least the next slot" (Column 4, lines 19-21), during which persistence test 68 is performed again. Also, the P values can be "re-calculated at each pass through the persistent test to ensure that updated persistence parameters are used to calculate the P values" (Column 8, lines 8-10).

Bi et al do not disclose wherein, during a defined space of time after a complete transmission of the first data packet by the terminal to the base station, the terminal is further operable to transmit a second reservation request in dependence on a third persistency probability, the second reservation request being associated with a second data packet.

Crisler et al disclose in Figure 5 that a mobile unit transmits (520) a reservation request and if it receives (550) a reserved time slot from the base station, the mobile unit can then transmit (560) user data packets in the reserved time slot. Refer to Column 8, lines 27-54. After the data packet is sent to the base station, the terminal can send another reservation request to the base station to transmit another data packet during a defined space of time (when the time slots are designated as random access). Refer to Column 5, lines 43-48 and Column 9, lines 7-11. Crisler et al do not include a third persistency probability. However, Bi et al disclose the use of persistency probabilities to gain access to a channel for data transmission. Therefore, it would have

Art Unit: 2663

been obvious to one of ordinary skill in the art at the time the invention was made to include wherein, during a defined space of time after a complete transmission of the first data packet by the terminal to the base station, the terminal is further operable to transmit a second reservation request in dependence on a third persistency probability, the second reservation request being associated with a second data packet. One would be motivated to do so in order to for a mobile unit to request time slots for data transmission, thereby preventing data collision between competing mobile units.

5. Referring to claim 35, Bi et al disclose that the terminal is further operable to transmit the first reservation request (access probe sequence) for the first time to the base station in further dependence of a first comparison of the first persistency probability (first predetermined threshold P) and a first random number (RP). Refer to Column 4, lines 14-21.

6. Referring to claim 36, Bi et al disclose that the terminal is further operable to transmit the first reservation request (access probe sequence) for an additional time to the base station in further dependence of a second comparison of the second persistency probability (second predetermined threshold P) and a second random number (RP). The claim does not distinguish between the first random number and the second random number. Refer to Column 4, lines 14-21. Furthermore, as shown in another embodiment in Figure 5, the first random number and the second random number can be different; the system generates (90) a new random number RP at the beginning of each access channel slot. Refer to Column 7, lines 38-44.

7. Referring to claim 37, Bi et al disclose that the terminal is further operable to transmit the first reservation request (access probe sequence) for an additional time to the base station in further dependence of a second comparison of the fourth persistency probability (third predetermined threshold P) and a second random number (RP). Refer to the rejection of claim 36. Furthermore, "If the persistence test fails, the access probe sequence is deferred until at least the next slot" (Column 4, lines 19-21), during which persistence test 68 is performed again.

8. Referring to claim 38, Bi et al disclose that the terminal is further operable to transmit the second reservation request (access probe sequence) for an additional time to the base station in further dependence of a second comparison of the third persistency probability and a second random number (RP). Refer to the rejection of claims 36 and 37.

9. Referring to claims 39 and 40, Bi et al disclose in Figure 1 a base station (BS 14a-e) or terminal (MS 12a-c) in a wireless network for exchanging user data and control data with each other in dependence upon a plurality of persistency probabilities for assigning various transmissions capacities for at least one data packet. Refer to Column 1, lines 11-23 and Column 2, lines 42-48 and lines 54-64. The base station or terminal comprises:

Means (Figure 4, Step 68) for transmitting a first persistency probability (predetermined threshold P) to the terminal whereby the terminal has means (Figure 1, antenna on MS 12a-c) operable to transmit a first reservation request (access probe sequence) for a first time (first time slot) to the base station in dependence on the first

Art Unit: 2663

persistence probability (predetermined threshold P), the first reservation request being associated with a first data packet. In Figure 4, "before transmitting an access probe in each access probe sequence, the wireless station performs a persistence test 68 for every Access Channel slot". The terminal transmits the access probe "only if the wireless unit passes the persistence test for that slot", in which a generated random number is compared with a predetermined threshold P . Refer to Column 4, lines 8-19.

Means (Figure 4, Step 68), subsequent to a transmission of the first reservation request (access probe sequence) for the first time (first time slot) by the terminal to the base station, for transmitting at least one of a second persistence probability (second predetermined threshold P) and a fourth persistence probability (none) to the terminal whereby the terminal is further operable to transmit the first reservation request for a second time (next time slot) in dependence of the second persistence probability (second predetermined threshold P). "If the persistence test fails, the access probe sequence is deferred until at least the next slot" (Column 4, lines 19-21), during which persistence test 68 is performed again. Also, the P values can be "re-calculated at each pass through the persistent test to ensure that updated persistence parameters are used to calculate the P values" (Column 8, lines 8-10).

Bi et al do not disclose means for transmitting a third persistence probability to the terminal whereby the terminal is further operable to transmit a second reservation request in dependence on the third persistence probability during a defined space of time after a complete transmission of the first data packet by the terminal to the base

station, the second reservation request being associated with a second data packet.

Refer to the rejection of claim 32.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,374,099 to Bi et al in view of U.S. Patent No. 5,142,533 to Crisler et al, and in further view of U.S. Patent No. 6,621,807 to Jung et al.

12. Referring to claim 32, Bi et al discloses that the data packet comprises a preamble and a data part. Refer to Column 3, lines 9-11.

Bi et al and Crisler et al do not disclose that the terminal is operable to transmit the preamble part as the first reservation request.

Jung et al discloses in Figure 3A that a data packet consists of a preamble (Element 36) and a data part (Element 38). The preamble is a channel designation request flag for the terminal to request designation of a channel on which a message will be sent. Refer to Column 4, lines 1-9. If a message is too long, it is separated into segments. The first segment is transmitted on the common access channel and the rest of the segments are transmitted on an available channel designated by the base station. Refer to Column 3, lines 52-59. This prevents "collisions with other MSs which are simultaneously attempting to transmit on the access channel," (Column 3, lines 58-

59). "In response to the channel designation request, the channel used for channel designation may be selected by the BS" (Column 4, lines 18-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the preamble is the first reservation request; the motivation being that if a message is too long and is separated into segments, the terminal can request another channel besides the common access channel to transmit additional segments of the message in order to avoid collision with other terminals using the common access channel.

13. Referring to claim 33, Bi et al disclose that the data packet comprises a preamble and a data part. Refer to Column 3, lines 9-11.

Bi et al and Crisler et al do not disclose that after receiving an assignment message corresponding to the first reservation request from the base station, the terminal is further operable to transmit the data part to the base station.

Jung et al discloses in Figure 3A that a data packet consists of a preamble (Element 36) and a data part (Element 38). The preamble is a channel designation request flag for the terminal to request designation of a channel on which a message will be sent. Refer to Column 4, lines 1-9. If a message is too long, it is separated into segments. The first segment is transmitted on the common access channel and the rest of the segments are transmitted on an available channel designated by the base station. Refer to Column 3, lines 52-59. This prevents "collisions with other MSs which are simultaneously attempting to transmit on the access channel," (Column 3, lines 58-59). Once the BS designates a channel, "the transmission of all subsequent message

Art Unit: 2663

segments will occur on the designated channel" (Column 9, lines 7-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that after receiving an assignment message corresponding to the first reservation request, the terminal is further operable to transmit the data part of the packet; the motivation being that if a message is too long and is separated into segments, the terminal can request another channel besides the common access channel to transmit additional segments of the message in order to avoid collision with other terminals using the common access channel.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng *ew*
August 10, 2005

Ricky Ngo
RICKY NGO
PRIMARY EXAMINER
8/18/05